

In response to that Office Action, please amend the above-identified application as follows.

IN THE CLAIMS

Please amend Claims 1, 7, 11, 21, 23, 29, 33, 40 and 237, and add Claims 252-54, to read as follows (a version marked to show the changes, is appended):

1. (Currently Amended) A method of processing image data defining a plurality of sequences of images, each from a respective camera, of a plurality of objects moving in a scene to produce signals defining representations of the objects in a three-dimensional computer model, the method comprising the steps of:

processing image data from a first of the cameras to identify image data relating to objects in the scene;

processing image data from a second of the cameras to identify image data relating to objects in the scene;

processing the identified image data from the first camera for each object to define an object representation in the three-dimensional computer model having a height dependent upon the image data for the object from the first camera;

processing the identified image data from the second camera for each object to define an object representation in the three-dimensional computer model having a height dependent upon the image data for the object from the second camera;

comparing the height of the representation of each object generated in dependence upon image data from the first camera with the height of the representation of the

corresponding object generated in dependence upon image data from the second camera;
and

generating object representations in the three-dimensional computer model in
dependence upon the height comparisons,

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wherein, when the heights of the corresponding representations are not within a
predetermined amount of each other, the taller representation is split into a first portion
having a height corresponding to the height of the smaller representation and a second
portion comprising the remaining part of the taller representation, and wherein a further
representation is defined in the three-dimensional model by re-positioning the second
portion in the three-dimensional model.

E2
7. (Currently Amended) A method according to claim 1, wherein the
second portion is re-positioned in dependence upon a representation defined on the basis of
image data from the camera which produced the smaller representation.

E3
11. (Currently Amended) A method according to claim 1, wherein each
object representation is defined as a planar surface with its base on a predetermined surface
in the three-dimensional computer model and with a position and size in dependence upon
a polygon bounding the image data for the object.

E4
21. (Currently Amended) A method of image processing in which image
data from first and second cameras is processed to identify image data relating to respective

objects, the height of each object in a modelling space is determined using the identified image data, and the heights of objects determined using image data from the first camera are compared with the heights of objects determined using image data from the second camera to determine which if any identified image data relates to more than one object,

wherein each object is defined as a planar surface with its base on a predetermined surface in the modelling space and with a position in dependence upon a polygon bounding the image data for the object, and wherein the width of the planar surface is determined by the width of the bounding polygon in the image data, and the height of the planar surface is calculated using the aspect ratio of the bounding polygon in the image data.

23. (Currently Amended) An image processing apparatus for processing image data defining a plurality of sequences of images, each from a respective camera, of a plurality of objects moving in a scene to produce signals defining representations of the objects in a three-dimensional computer model, the apparatus comprising:

means for processing image data from a first of the cameras to identify image data relating to objects in the scene;

means for processing image data from a second of the cameras to identify image data relating to objects in the scene;

means for processing the identified image data from the first camera for each object to define an object representation in the three-dimensional computer model having a height dependent upon the image data for the object from the first camera;

means for processing the identified image data from the second camera for each

object to define an object representation in the three-dimensional computer model having a height dependent upon the image data for the object from the second camera;

means for comparing the height of the representation of each object generated in dependence upon image data from the first camera with the height of the representation of the corresponding object generated in dependence upon image data from the second camera; and

means for generating object representations in the three-dimensional computer model in dependence upon the height comparisons,

wherein the apparatus is arranged to perform processing such that, when the heights of the corresponding representations are not within a predetermined amount of each other, the taller representation is split into a first portion having a height corresponding to the height of the smaller representation and a second portion comprising the remaining part of the taller representation, and wherein a further representation is defined in the three-dimensional model by re-positioning the second portion in the three-dimensional model.

29. (Currently Amended) Apparatus according to claim 23, arranged to perform processing such that the second portion is re-positioned in dependence upon a representation defined on the basis of image data from the camera which produced the smaller representation.

33. (Currently Amended) Apparatus according to claim 23, arranged to perform processing such that each object representation is defined as a planar surface with

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its base on a predetermined surface in the three-dimensional computer model and with a position and size in dependence upon a polygon bounding the image data for the object.

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40. (Currently Amended) An image processing apparatus operable to process image data from first and second cameras to identify image data relating to respective objects, to determine the height of each object in a modelling space using the identified image data, and to compare the heights of objects determined using image data from the first camera with the heights of objects determined using image data from the second camera to determine which if any identified image data relates to more than one object, wherein the apparatus is arranged to perform processing such that each object is defined as a planar surface with its base on a predetermined surface in the modelling space and with a position in dependence upon a polygon bounding the image data for the object, and such that the width of the planar surface is determined by the width of the bounding polygon in the image data, and the height of the planar surface is calculated using the aspect ratio of the bounding polygon in the image data.

E9

237. (Currently Amended) An image processing apparatus for processing image data defining a plurality of sequences of images, each from a respective camera, of a plurality of objects moving in a scene to produce signals defining representations of the objects in a three-dimensional computer model, the apparatus comprising:

an image data identifier for processing image data from a first of the cameras to identify image data relating to objects in the scene, and for processing image data from a second of the cameras to identify image data relating to objects in the scene;

an object representation definer for processing the identified image data from the first camera for each object to define an object representation in the three-dimensional computer model having a height dependent upon the image data for the object from the first camera, and for processing the identified image data from the second camera for each object to define an object representation in the three-dimensional computer model having a height dependent upon the image data for the object from the second camera;

B9 a height comparer for comparing the height of the representation of each object generated in dependence upon image data from the first camera with the height of the representation of the corresponding object generated in dependence upon image data from the second camera; and

an object representation generator for generating object representations in the three-dimensional computer model in dependence upon the height comparisons,

wherein the apparatus is arranged to perform processing such that, when the heights of the corresponding representations are not within a predetermined amount of each other, the taller representation is split into a first portion having a height corresponding to the height of the smaller representation and a second portion comprising the remaining part of the taller representation, and wherein a further representation is defined in the three-dimensional model by re-positioning the second portion in the three-dimensional model.

252. (New) A method of processing image data defining a plurality of sequences of images, each from a respective camera, of a plurality of objects moving in a scene to produce signals defining representations of the objects in a three-dimensional computer model, the method comprising the steps of:

processing image data from a first of the cameras to identify image data relating to objects in the scene;

processing image data from a second of the cameras to identify image data relating to objects in the scene;

processing the identified image data from the first camera for each object to define an object representation comprising a planar surface with its base on a predetermined surface in a modelling space having a position, width and height dependent upon a polygon bounding the image data for the object from the first camera, wherein the width of each planar surface representing an object is determined by the width of the associated bounding box in the image data, and the height of each planar surface is calculated using the aspect ratio of the bounding box in the image data;

processing the identified image data from the second camera for each object to define an object representation comprising a planar surface with its base on a predetermined surface in the modelling space having a position, width and height dependent upon a polygon bounding the image data for the object from the second camera, wherein the width of each planar surface representing an object is determined by the width of the associated bounding box in the image data, and the height of each planar surface is calculated using the aspect ratio of the bounding box in the image data;

comparing the height of the representation of each object generated in dependence upon image data from the first camera with the height of the representation of the corresponding object generated in dependence upon image data from the second camera; and

generating object representations in the three-dimensional computer model in dependence upon the height comparisons.

253. (New) An image processing apparatus for processing image data defining a plurality of sequences of images, each from a respective camera, of a plurality of objects moving in a scene to produce signals defining representations of the objects in a three-dimensional computer model, the apparatus comprising:

means for processing image data from a first of the cameras to identify image data relating to objects in the scene;

means for processing image data from a second of the cameras to identify image data relating to objects in the scene;

means for processing the identified image data from the first camera for each object to define an object representation comprising a planar surface with its base on a predetermined surface in a modelling space having a position, width and height dependent upon a polygon bounding the image data for the object from the first camera, wherein the width of each planar surface representing an object is determined by the width of the associated bounding box in the image data, and the height of each planar surface is calculated using the aspect ratio of the bounding box in the image data;

means for processing the identified image data from the second camera for each object to define an object representation comprising planar surface with its base on a predetermined surface in the modelling space having a position, width and height dependent upon a polygon bounding the image data for the object from the second camera, wherein the width of each planar surface representing an object is determined by the width of the associated bounding box in the image data, and the height of each planar surface is calculated using the aspect ratio of the bounding box in the image data;

means for comparing the height of the representation of each object generated in

dependence upon image data from the first camera with the height of the representation of the corresponding object generated in dependence upon image data from the second camera; and means for generating object representations in the three-dimensional computer model in dependence upon the height comparisons.

254. (New) An image processing apparatus for processing image data defining a plurality of sequences of images, each from a respective camera, of a plurality of objects moving in a scene to produce signals defining representations of the objects in a three-dimensional computer model, the apparatus comprising:

an image data identifier for processing image data from a first of the cameras to identify image data relating to objects in the scene, and for processing image data from a second of the cameras to identify image data relating to objects in the scene;

an object representation definer for processing the identified image data from the first camera for each object to define an object representation comprising a planar surface with its base on a predetermined surface in a modelling space having a position, width and height dependent upon a polygon bounding the image data for the object from the first camera, and for processing the identified image data from the second camera for each object to define an object representation comprising a planar surface with its base on a predetermined surface in the modelling space having a position, width and height dependent upon a polygon bounding the image data for the object from the second camera,

wherein the object representation definer is arranged to perform processing such that the width of each planar surface representing an object is determined by the width of the associated bounding box in the image data, and the height of each planar surface is